

# ARTIFICIAL INTELLIGENCE APPLICATION IN ENGLISH SPEAKING CLASS: STUDENTS' VIEW AND OBSTACLES

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## Abstract

This study aims to find students' view towards the implementation of Artificial intelligence (AI) in learning speaking and its obstacles. Mixed method was used to conduct this research. the total population is 105 students. While, the sample of this study was thirty five students of English Education Department, Bengkulu University, Indonesia. It was just because only class C that the lecturer implemented Artificial intelligence application in public speaking class. Thus, the sampling technique was purposive sampling. Questionnaire and interview were addressed as instruments to answer the research questions. The questionnaire was addressed to thirty five students, while only fifteen students were interviewed. The data were analyzed quantitatively and qualitatively. For quantitative analysis, the data were analyzed by using simple calculation to know the percentage and mean score. For qualitative data analysis, coding was used for it. The result showed that students had positive responses towards the implementation of Artificial Intelligence in English speaking class. However, few students faced several obstacles in applying in it when they spoke English. Those obstacles were poor internet connection, incomplete feature of the AI application, language skill and psychological problem. In short, AI applications can be as one of media for students in learning speaking because it helps them for speaking, even though, those still have limitation.

**Keywords:** Artificial Intelligence; English Speaking; View; Obstacle

## INTRODUCTION

Speaking is a productive skill that students must have in English because it is beneficial for expressing idea to the listener or audience in academic and non-academic setting (Ur, 2017). By speaking English, it would support students in communicating to other people or students. In speaking, the students could be successful if they had high motivation, high participation, talk a lot and the language is acceptable. However, the students' problems based on theory from Ur (2017), namely low participation, inhibition, mother tongue use and nothing to say. Based on the pre-observation conducted in speaking class of English Education Department of Bengkulu University at the end of January 2023, most of the students were not good in speaking. They had low ability in terms of pronunciation, grammar and vocabulary. Besides, when they talk, they got paused in speaking.

One of the alternative ways to deal with the students' problems is providing technology as media in speaking. Technology in teaching and learning is crucial for English teachers because it assists them in doing instruction. One of the technologies that can be used is Artificial intelligence (AI) application. Russell and Norvig (2010) stated that AI is an application that could act like a human behavior. Thus, it is recommended for teachers to use it in supporting the students learn English. Besides, AI could give space for the students in the classroom either in big or small classes. Students also enjoy to talk and play with the AI application because several features were interesting for them. AI provides opportunities and motivation for the

students to learn English (Han, 2012). This application is able to be implemented in English skills, especially in speaking.

Furthermore, many studies were concerning about artificial intelligence (AI) in learning English from 2018 until 2022. The first, Some studies concentrated on using AI to teach English. According to Buddhima & Keerthiwansa (2018), if the students were absent, the AIEd would still provide an engaging learning environment because they have access to personalized lessons, can view their progress reports and common errors, can talk to the teacher and other students when they need clarifications, and can learn the lesson at home. However, in order to begin using this AI strategy, both ESL instructors and students should have solid computer handling skills, courses should have computers for every student with internet access, and there should be professionals on hand to manage the AI system. Then, Wang (2019) used AI to promote English learning change in conceptual paper. The result showed that AI could be used change the behavior of students in learning English to be positive because it helped them to learn English. This is same as Yang (2020) wrote a conceptual paper with the goal of analyzing the meaning of AI technology and its application to teaching oral English and listening as well as writing and translation in English. The outcome demonstrated that although the use of artificial intelligence in English instruction is still in its infancy, it has immense potential. It has altered the process by which students learn English, enhanced the learning experience, altered the roles of teachers, raised the standard of English instruction, and encouraged the reform of English teaching. The deep integration of artificial intelligence and English instruction will replace traditional language instruction as the new norm. Fitria (2021a) used grammarly for AI writing as alternative for students to write English. The result showed that AI writing can improve students writing ability after researcher did pre-test and post-test. In the same year, Fitria (2021b) employed artificial intelligence-based technologies to teach and learn English. She discovered that using AI improves practical abilities like writing and provides a real-world dialog platform similar to spoken English. While improving students' practice skills, it maximizes the teaching impact of English in ELT. Learning English is now easier because to platforms and technology advancements. The use of AI technology presents the chance to enhance English language proficiency. The availability of many forms of educational technology facilitates pupils' comprehension of English. The students can use a variety of ELT applications that are based on AI technology. Through a mechanism used by both computers and mobile devices, such as Google Translate, Text to speech (TTS), English Able, Orai, Elsa, Chatbot, Duolingo, Neo platforms, and many more, these technologies may simulate intelligence and make decisions that are identical to those made by humans.

Furthermore, Sharadgah & Sa'di (2022) reviewed the research of the use of AI in English Language Teaching and Learning from 2015 until 2021. They discovered that AI in ELT has a bright future. In terms of improving English language proficiency, translation, assessment, recognition, attitude, satisfaction, etc., AI in ELT produced favorable outcomes. Additionally, it was discovered that there are an increasing number of articles on the subject that are being published, and that mixed research methods are most frequently utilized, higher education levels are most frequently sampled, students are most frequently employed as participants, and most studies are developed. Shu & Xu (2022) researched on Artificial Intelligence-Based English self-learning effect evaluation and adaptive influencing factors analysis. The findings indicated that English majors are better suited to self-study of artificial intelligence in English than non-English majors ( $M = 3.59$  for English majors,  $M = 3.36$  for non-English majors), and students can enhance their adaptability to learn AI by building models. The key to increasing learners' English proficiency is transfer learning, and adaptive learning is the key to reaching this aim. The standard of pupils' independent English assignments is ensured by self-adaptive learning. Ineffective English instruction has an impact on students' learning outcomes as well as their capacity to learn English. Next, Nga (2022) researched on how to implement AI in

English teaching, found out the problems and provide solution. But it is not comprehensive. He just explored the implementation of AI. In addition, Mukhallafi (2020) examined strategies for applying AI in teaching and learning English according to students' view. The findings identified a set of tactics that can be used with AI to teach and learn English. The findings also pointed to a very low degree of adoption of these teaching/learning methodologies for English and highlighted its potency when applied in this context. According on the study sample, the training requirements have been determined. For the use of AI applications in the field of English teaching, a suggested plan that covers the fundamentals, objectives, content, processors, and evaluation techniques has been envisioned.

Second, several studies emphasized on AI for language skills, such as listening and speaking. Suryana, Asrianto, Murwantono (2020) researched on artificial intelligence to master English listening. The findings indicated that the most successful and effective artificial intelligence mobile application to enhance listening skills is Netflix. Suciati (2021) then looked into the most popular speaking-based artificial intelligence programs for self-directed learning. She got three answers. First, Cake, Talk, Elsa, and Speak English are the most popular artificial intelligence-based speaking programs. Second, the reasons why students select them include the fact that they are cost-free, simple to use, allow for anywhere, anytime speaking practice, serve as an excellent partner option, and allow for the evaluation or assessment of their speaking practice by the application. The third is that the limitations of the artificial intelligence-based speaking applications' flaws on the topics and conversations that they serve prevent them from being elaborated more. Speaking programs with useful capabilities are not available for free and take up more space on a device.. Next, Li (2020) also applied AI for language skill, but it is in IELTS test. Thus, he aimed to find which characteristics in IELTS Liulishuo (an artificial English-learning app to improve IELTS performance) are following the elements of computer-assisted language learning (CALL) pedagogy. The result showed that he results showed that IELTS Liulishuo has affordability to be used as an online platform for foreign English learning. More importantly, it shed some light on CALL pedagogy and the design of artificial applications of foreign language learning.

Third, Peña-Acuña & Crismán-Pérez (2022) find out the attitudes towards the implementation AI called Papua in Language learning. They discovered that people thought their speaking skills had improved the greatest. Participants also highlighted the improvement of vocabulary memorization and gave the app's self-evaluation feature excellent feedback. Then, some studies developed AI in English teaching. Lee, Kim, and Sung (2022) developed AI English learning support system to facilitate learner-generated context based learning. The result showed that AI could support learners autonomously through Learning generated context. In the same year, Jia, Ma, and Loi (2022) created an AI-Based learning system for authentic and widespread English language learning among L2 learners. The mobile learning principle is used to guide the integration of AI into language teaching and learning in this work. Based on previous studies, those researchers just focused on the implementation of AI in English teaching, such as in writing, IELTS, speaking, and listening. Besides, some studies emphasized on attitudes and developed AI for language learning. Then, the research of artificial intelligence in English speaking skill is rare to be conducted. Therefore, this current research has something different because it focuses on the students' view and obstacles on the use of AI in English speaking class. The research questions of this research are (1) What are the students' view on the implementation of AI Application in speaking class; (2) What are obstacles of students in applying AI in speaking English?. This research will be significance for several sides, such as students, teacher or lecturer, and further researcher. For students, it can be beneficial for supporting their learning English, while for the lecturer, it can assist him or her in teaching

English because it can as media for helping them to trigger students' speaking skill. For the further researcher, it can be as a reference to conduct the research with the same field.

## **METHOD**

### **Research design**

The design of this research was a mixed method with explanatory sequential design. A mixed method is a design that combining quantitative and qualitative research design (Creswell, 2017). It is suitable for this research because it could answer the research questions or objectives. The first objective is to find out the students' view on the use of AI that can be answered by using quantitative design through questionnaire, while the second one is able to be achieved by using qualitative via interview. The type of this design is explanatory sequential design due to the first datum was analyzed quantitatively then followed by the qualitative one from the result of the second research question.

### **Population and sample**

This research was conducted in public speaking class at the second semester of English Department of University of Bengkulu. There are three classes in the second semester namely Class A, B, and C. Each class comprises 35 students, thus, the total population is 105 students. The sample of this research was just class C consisting of 35 students because only class C that the lecturer implemented Artificial intelligence application in public speaking class. The sampling technique was purposive sampling.

### **Instruments**

The instruments of this research were questionnaire and interview. The questionnaire was used to measure the students' view regarding the implementation of AI application in speaking class, while the interview was used to measure the obstacles. The questionnaire was arranged based on the theory regarding the advantages of AI in speaking. Then, it has used likert scale from strongly agree, agree, disagree and strongly disagree. The questionnaire has been validated by experts judgment. It was distributed to 35 students. Moreover, the interview used was semi-structured interview to explore the obstacles faced by students and lecturer in implementing AI in speaking class. There were 15 students and 1 lecturer to be interviewed by the researcher.

### **Method of Data Collection**

The data were collected through questionnaire and interview. The procedures of data collection were (1) permitting to the head of English Education, Faculty of Teacher Training and Education, University of Bengkulu; (2) providing draft of instruments; (3) validating instruments; (4) asking the participants of the research whether they were willing to be as research object or not. The result showed that they do not mind to be participants of this research; (4) distributing questionnaire via google form to the thirty five students; (5) interviewing fifteen students; and (6) filing the data of questionnaire and interview.

### **Method of Data Analysis**

The data were quantitatively and qualitatively analyzed by the researcher. The quantitative data were gathered through questionnaire. Then, it was analyzed by using simple calculation to find out the mean score, percentage and frequency. The qualitative data were interview transcript which analyzed by using thematic analysis (Braun and Clarke, 2012). In this part, there were several steps. The first, the researcher must understand about the data. The result of interview must be comprehended and interpreted. The second, the interview transcription was coded or labeled to find out the important things regarding the research question. The third, the researcher

identified and classified the theme for those codings. From those themes, the researcher could know the answer of the research question.

## RESULTS AND DISCUSSION

### Results

Table 1. The result of students' peception on using AI in speaking class

No	Statements	Scale			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	AI Application is innovative for learning English speaking	13 39.4%	20 60.6%	0%	0%
2	Application is effective for learning English speaking	8 24.2%	25 75.8%	0%	0%
3	AI Application assists you in pronouncing English words	7 21.2%	24 72.7%	2 6.1%	0%
4	AI Application motivates you to speak English	12 36,4%	19 57,6%	2 6.1%	0%
5	AI Application helps you to improve your vocabulary in speaking	11 33.3%	21 63.6%	1 3%	0%
6	AI Application is easy to use for speaking English	7 21.2%	25 75.8%	1 3%	0%
7	AI application can be used for all ages	7 21.2%	23 69.7%	3 9.1%	0%
8	AI application can engage your interaction to another speaker even though it is like a robot	9 27.3%	21 63.6%	3 9.1%	0%
Mean scores		28.02	67.42	4.55	0

Table 1 shows that most of students gave positive responses towards the implementation of AI in learning speaking. It is proved by 28.02% students who chose strongly agree and 67.42% agree. However, there was 4.55% students who opted disagree. Then, there was not student who elected strongly disagree.

## The Students' Obstacles in Implementing AI in Speaking Class

Students faced several obstacles based on the interview results. Those problems were internet connection, mobile phone device, imperfect features of AI, language skill, and motivation. The details information can be seen as follows.

The first, students got problems in terms of connection. The connection is not good when some students applied AI whether in the classroom or at home. It can be seen in example 1.

### Example 1

*I think, internet connection sir because at my house the networks is not running well, so I can not use my AI well (Student\_1).*

*The problem that I faced is bad internet connection (Student 3 & 4).*

The second, several students felt that some AI application does not work on their mobile phones because their mobile phone is not updated. As student 2 and 5 said in example 2

### Example 2

*I am sorry sir, my mobile phone is not compatible with this program. No sound is detected. Then, the first, I am difficult to install this program (student 2).*

*I also have problem with my handphone sir, so it does not work for my handphone (Student 3).*

The third, some students felt that some features in AI applications can not be used, such as in Replika Application, the sound can be functed if the students paid some money. As students 5 & 6 stated in example 3.

### Example 3

*The problem that sound AI application cannot be used because the application asked for paying some money, especially Replika application (Student 5 & 6).*

The fourth, There is a student thought that AI application can do maximum interaction to them because they are like a robot, and if they asked questions to AI, some times AI can not give the direct answer. It cn be seen in exmpe 4.

### Example 4

*I think, the AI application can not answer my question directly because sometimes, I ask him or her, the AI cannot do it, o I thin it is different from the real human for interaction. AI can not do interaction as flexibly as human (student 7).*

The fifth, several students thought that AI application can not help them in practicing their pronunciation and vocabulary because it does not work for them. As it can be seen in example 5.

### Example 5

*I do not know sir, This can not maximally improve my pronunciation and my vocabulary (student 8).*

*I can not use it to practice my pronunciation because the microphone button does not work in my handphone (student 9).*

The sixth, Some students were not motivated to learn speaking by using AI because they were lazy and do not have internet quota. As student 10 and 11 said in example 6.

### Example 6

*I am not motivated to speak English by using AI because I do not like learn English by application, I like directly to native speaker. (Student 10)*

*I am lazy to speak English by using AI because I have not had enough Quota to use it in the classroom and in my house (student 11).*

## Discussion

This part covers the discussion of two objectives, namely finding out students' perception of using AI in speaking and the challenge of using AI in speaking class. First, based on the result, students had a positive perception of using artificial intelligence in learning to speak. It can be seen from the mean scores of the questionnaire, namely, 28.02 percent of students chose strongly agree and 67.42 percent of students chose to agree. The reason why they got it is that most of the students felt that they were helped by AI applications in speaking English. In other words, they got benefits from AI applications because AI could assist them to pronounce English words, practice their speaking and listening, interact with AI robot, and add their vocabularies. This first finding was in line with Suciati (2021) who found that AI application could make students practice their English, especially their pronunciation, speaking, listening and vocabulary. Besides, Aljohani (2021) also researched on AI towards English teaching. Their research participants had a positive perception on the implementation AI in English teaching, such as speaking, listening, reading, and writing. Then, Wang (2019) used AI to promote English learning change in the conceptual paper. The result showed that AI could be used change the behavior of students in learning English to be positive because it helped them to learn English.

The second finding of this study showed that students faced several obstacles in implementing AI in speaking class. The first, the technical problem becomes one of the problems that some students found during implementation AI in speaking class. The technical problems, such as internet connection and incompatible mobile phone. The internet connection is sometimes poor whether in the classroom and at their home, thus, they were difficult to use AI application. Then, several students had a mobile phone that was difficult to download the application and use it. Several students could download it and appeared the complete features of AI application, but some students sometimes download it and there is a feature that not appeared in their mobile phone, such as the microphone feature. Another technical problem that some students did not have or limited internet quota, so they were not able to access the application. The second, language skill problems were also the issue that some students got in speaking class. Several students could not maximize their speaking and pronunciation ability when applying AI applications. It is because some students were not usual to interact with AI and lazy to do it. The third, psychological factor influences students in speaking. In this part, some students were not motivated to use AI in learning speaking because they were possible not interested in using technology in speaking. They were more like directly practising their speaking rather than by using robot or AI application. The fourth, social factor, like interaction became a problem for students. Interaction by using communication in speaking is one of the keys. Some students can not maximally interact with the AI application because it is not the same as human. They could not use their body language and eye contact to speak with AI application. The AI just speak and use their voice to respond what the students' talk. AI application could not use their body language and eye contact because they can not move like human. This second research finding was amost similar from Suciati (2021), but she did not only found artificial intelligence-based speaking applications are limited on the topics and conversation served by the applications so it cannot be elaborated more, but several features can not be accessed. It means that her finding has similarity and dissimilarity with this research. Nga (2022) found problems in impementing

AI in learning English, such as not free access and still use manual assessment for their students. However, the problems that he found that it was not comprehensive, he did not explain detail problems.

Based on the findings, by looking at the perception, the researcher assumed that AI application is application that can be used by students and teachers in assisting them in speaking or learning English. Even though, several students had problems in applying AI in their learning.

## CONCLUSION

In conclusion, students had positive responses towards the implementation of AI in learning speaking. They got benefits from it. However, several students had problems in applying it in learning speaking, such as language skill, psychological factor and technical problem. This research is limited in one class in the second semester. However, there are three classes in that semester. Besides, this research only focused on perception and problems and the researcher did not provide solution for solving the problems. Therefore, several recommendations are needed for further researchers. Those are big sample size, complex instruments, and exploring the solution for dealing with the problems in using AI application for learning speaking English. Next, for lecturer, it is better to provide AI application which has complete features and it is easy to access by the students.

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